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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Q. Zhao et al.

Confirmation No. 7295

Serial No. 09/843,143

Group Art Unit 2832

Filed April 27, 2001

Examiner (not assigned)

For COUPLED INDUCTOR DC/DC CONVERTER

Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

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OFFICE OF PETITIONS

SUBMISSION OF PETITION FOR REVIVAL OF AN APPLICATION
ABANDONED UNINTENTIONALLY UNDER 37 C.F.R. 1.137(B)

SUBMISSION OF FORMAL DRAWINGS

SUBMISSION OF COPY OF PETITION TO REINSTATE
APPLICATION FILED DECEMBER 23, 2003

PROVISIONAL PETITION TO SUSPEND THE RULES UNDER
37 C.F.R. 1.183

Sir:

Attached hereto is a petition for revival of the above-identified application together with a check in the amount of the requisite fee.

A notice to file missing parts of a nonprovisional application was mailed June 25, 2001. The notice required submission of an executed declaration, the requisite filing fee, and substitute drawings. The undersigned timely filed a response on August 13, 2001; however, the response failed to include formal drawings. Attached hereto is a copy of the petition to reinstate the application filed in the USPTO on December 23, 2003 which provides evidence of the date of filing a response to the notice as well as copy of the declaration paper.

The only issue required to complete the application is a submission of suitable drawing figures. Accompanying this paper is a formal drawing submission which fulfills the requirements for the application.

If required, the undersigned hereby provisionally petitions the

Commissioner to suspend the rules so as to allow this application to proceed forward with Examination.

As can be seen from the petition to reinstate the application filed in the USPTO December 23, 2003, the undersigned has been under the mistaken impression that the filing made August 23, 2001, was sufficient to complete the application for examination purposes. This impression was supported by the USPTO mailing a response to a status inquiry on October 18, 2002 which indicated that the application would be examined in one to four months. In addition, a change of correspondence address and second status inquiry were filed in the case, and the USPTO mailed a corrected filing receipt on September 2, 2003 to the undersigned's office. Further, recorded assignments were mailed by the USPTO on October 18, 2001. It was not until December 9, 2003, when the USPTO mailed a Notice of Abandonment, that the undersigned had any indication that the application was in jeopardy. As can be seen from the response filed December 23, 2003, the undersigned was under the mis-impression that the USPTO had made an error in mailing the notice of abandonment.

After placing a number of telephone calls with USPTO personnel, the undersigned only recently learned that a notice of incomplete reply had been mailed September 25, 2001. The undersigned has now obtained a copy of this notice and notes that it specifically identifies the missing drawings. The undersigned has reviewed his file for the above-identified application and has determined that the September 25, 2001 document is not present in the file. Furthermore, the undersigned has checked his computer database and his manual notebook which keep logs of all mail and docketing information, and has determined that there was no entry of the September 25, 2001 document. In view of the file, and the docketing and records kept by the undersigned's law firm, the undersigned concludes that the document mailed September 25, 2001 was never received. Thus, any failure to respond to the notice of incomplete reply mailed September 25, 2001 was unavoidable.

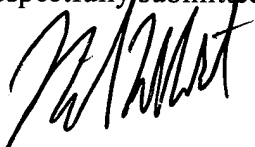
Therefore, in view of the USPTO communications, the lack of receipt of the notice of incomplete reply, and the conduct of the undersigned, it is clear that

the failure to file drawings in response to the notice to file missing parts was unintentional, and the delay subsequent to the notice of incomplete response was unavoidable. Accordingly it is requested that the application be reinstated under Rule 137(b), and that reinstatement is well justified particularly since failure to respond to notice of incomplete application was unavoidable. Further, in view of the foregoing, it is respectfully submitted that, if necessary, suspension of the rules under Rule 183 is well-justified, since it would be inequitable to hold the application as having become abandoned previous to December 9, 2003.

Because all matters are complete for examination, the Commissioner is requested to reinstate the application and to commence examination.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for the petition and two provisional petitions made herein and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041 (Whitham, Curtis & Christofferson, P.C.).

Respectfully submitted,



Michael E. Whitham
Reg. No. 32,635

Whitham, Curtis & Christofferson, P.C.
11491 Sunset Hills Road, Suite 340
Reston, VA 20190

Tel. (703) 787-9400
Fax. (703) 787-7557

Customer No.: 30743

**Petition For Revival Of An Application For Patent Abandoned
Unintentionally Under 37 CFR 1.137(b) (Small Entity)**

Docket No.
01640219aa

In Re Application Of: **Q. Zhao et al.**

Application No. 09/843,143	Filing Date April 27, 2001	Examiner not known	Customer No. 30743	Group Art Unit 2832	Confirmation No. 7295
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Invention: **COUPLED INDUCTOR DC/DC CONVERTER**

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OFFICE OF PETITIONS

Attention: Office of Petitions
Mail Stop Petition
COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

NOTE: If information or assistance is needed in completing this form, please contact Petitions Information at (703) 305-9282.

The above-identified application became abandoned for failure to file a timely and proper response to a notice or action by the Patent and Trademark Office. The date of abandonment is the day after the expiration date of the period set for reply in the Office notice or action plus any extension of time actually obtained.

APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION

NOTE: A grantable petition requires the following items:

- (1) Petition fee;
- (2) Reply and/or issue fee;
- (3) Terminal disclaimer with disclaimer fee--required for all utility and plant applications filed before June 8, 1995; and for all design applications; and
- (4) Statement that the entire delay was unintentional.

1. ☒ A proposed reply to the above-identified Office Action:

☒ is enclosed. ☐ was filed on _____

The proposed reply is in the form of: Submission of Formal Drawings; copy of reinstatement petition

2. ☐ The issue fee:

☐ is enclosed. ☐ was paid on _____

3. ☒ Applicant claims small entity status. See 37 CFR 1.27

4. ☒ The abandoned application was a:

☐ design application. ☒ utility application. ☐ plant application.

5. ☐ A terminal disclaimer (and fee) disclaiming a period equivalent to the period of abandonment is enclosed.

6. ☐ Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required.

**Petition For Revival Of An Application For Patent Abandoned
Unintentionally Under 37 CFR 1.137(b) (Small Entity)**

Docket No.
01640219aa

In Re Application Of: **Q. Zhao et al.**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/843,143	April 27, 2001	not known	30743	2832	7295

Invention: **COUPLED INDUCTOR DC/DC CONVERTER**

Calculation and Payment of Fees

Enclosed are the following fees:

7. ☒ Petition fee under 37 CFR 1.17(m) in the amount of: \$685.00
8. ☐ Fee for amendment in the amount of: _____
9. ☐ Fee for extension of time to reply to Office Action in the amount of: _____
10. ☐ Issue fee in the amount of: _____
11. ☐ Continuing application filing fee in the amount of: _____
12. ☐ Terminal disclaimer fee in the amount of: _____
13. ☐ _____

Total fees enclosed: \$685.00

The fee of **\$685** is to be paid as follows:

- ☒ A check in the amount of the fee is enclosed.
- ☐ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. **56-2041**

**Petition For Revival Of An Application For Patent Abandoned
Unintentionally Under 37 CFR 1.137(b) (Small Entity)**

Docket No.
01640219aa

In Re Application Of: **Q. Zhao et al.**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/843,143	April 27, 2001	not known	30743	2832	7295

Invention: **COUPLED INDUCTOR DC/DC CONVERTER**

Statement

The entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional.


Signature

Dated:

11/9/2004

Michael E. Whitham, Reg. No. 32,635
Whitham, Curtis & Christofferson, P.C.
11491 Sunset Hills Road, Suite 340
Reston, VA 20190

703-787-9400

I certify that this document and fee is being deposited on _____ with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Signature of Person Mailing Correspondence

Typed or Printed Name of Person Mailing Correspondence

CC:



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent application of

Q. Zhao et al.

Serial No.: 09/843,143

Group Art Unit: not yet assigned

Filed: April 27, 2001

Examiner: not yet assigned

For: COUPLED INDUCTOR DC/DC CONVERTER

Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

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OFFICE OF PETITIONS

PETITION TO REINSTATE APPLICATION

A Notice of Abandonment was issued in the above-identified patent application on December 9, 2003. The undersigned requests reinstatement in view of the following facts.

The Commissioner is authorized to charge attorney's Deposit Account 50-2041 the \$130.00 to satisfy the Petition fee. However, it is the undersigned's position that no petition fee should be due since the error appears to be one made by the U.S. Patent Office. If any additional fees are required to grant this petition or to gain entry of the Response to Notice to File Missing Parts discussed below, the Commissioner is authorized to charge attorney's Deposit Account 50-2041 (Whitham, Curtis & Christofferson).

Attached hereto is a copy of the Response to Notice to File Missing Parts which was timely filed in the U.S. Patent Office on August 13, 2003 and copies of the documents filed therewith. Also attached is a copy of a date stamped receipt from the U.S. Patent Office

evidencing filing of the documents. Given that the Response was timely filed, the USPTO should now withdraw the abandonment and reinstate the case for consideration by the Examiner without incurring a Petition Fee.

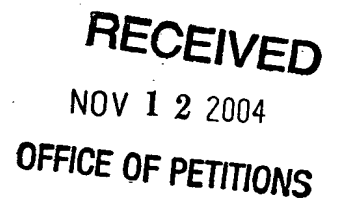
Respectfully submitted,



Michael E. Whitham
Registration No. 32,635

Whitham, Curtis & Christofferson, PC
11491 Sunset Hills Road, Suite 340
Reston, Virginia 20190
703-787-9400

Customer Number 30743



Fees \$ 236.60 Deposit Account No. (if applicable) _____
236.60 (33) 236.60 Assignment charge; _____ Extension of Time;
236.60 issue fee/advance copies; 1.75 other Search charge
 Amendment 236.60 Notice of Appeal _____ Appeal Brief _____
 Sheets of 236.60 Drawings _____ Proposed Drawing Corrections (w/ _____ drawings)
 Change of Address _____ Request for Extension of Time _____
☒ Assignment (2) ☒ Recordation Form Cover Sheet (2)
 Information Disclosure Statement _____ PTO-1449 and associated art (_____ docs.)
 Priority Document(s) _____ Other Information & data to file
many other various information



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Q. Zhao et al.

Serial No.: 09/843,143

Group Art Unit: 2832

Filed: April 27, 2001

Examiner: Unknown

For: COUPLED INDUCTOR DC/DC CONVERTER

Assistant Commissioner of Patents
Washington, D.C. 20231

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OFFICE OF PETITIONS

SUBMISSION OF MISSING PARTS TO COMPLETE APPLICATION

Sir:

In response to the Notice to File Missing Parts of Application dated June 25, 2001, enclosed herewith are the following:

- 1) Copy of form PTO-1533,
- 2) An copy of the executed Declaration and Power of Attorney,

Enclosed is a check in the amount of \$420.00 to cover the filing fee and surcharge. Please charge any deficiencies in payment and credit any overpayments to attorney's deposit account no. 23-1951.

Respectfully submitted,

Michael E. Whitham
Reg. No.: 32,635

McGuireWoods LLP
1750 Tysons Boulevard, Suite 1800
McLean, VA 22102
(703)712-5000



Page 1 of 2
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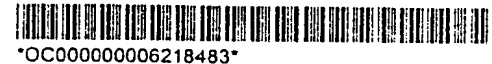
OFFICE OF PETITIONS

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/843,143	04/27/2001	Qun Zhao	00-117/123

CONFIRMATION NO. 7295

FORMALITIES LETTER



McGuire Woods LLP
Suite 1800
1750 Tysons Boulevard
McLean, VA 22102

Date Mailed: 06/25/2001

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

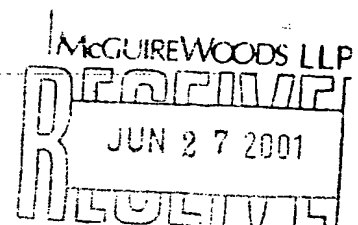
- The statutory basic filing fee is missing.
Applicant must submit \$ 355 to complete the basic filing fee and/or file a small entity statement claiming such status (37 CFR 1.27).
- The oath or declaration is unsigned.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(e) of \$65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.
- **The balance due by applicant is \$ 420.**

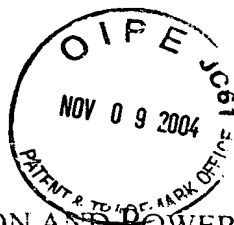
The application is informal since it does not comply with the regulations for the reason(s) indicated below

The required item(s) identified below must be timely submitted to avoid abandonment.

- Substitute drawings in compliance with 37 CFR 1.84 because:
 - drawing sheets do not have the appropriate margin(s) (see 37 CFR 1.84(g)). Each sheet must include a top margin of at least 2.5 cm. (1 inch), a left side margin of at least 2.5 cm. (1 inch), a right side margin of at least 1.5 cm. (5/8 inch), and a bottom margin of at least 1.0 cm. (3/8 inch);

A copy of this notice **MUST** be returned with the reply.





DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

COUPLED INDUCTOR DC/DC CONVERTER

the specification of which:

(check one)

☐ is attached hereto

☒ was filed on April 27, 2001, as
Application Serial No. 09/843,143
and was amended on _____
(if applicable)

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I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56*

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

priority
claimed

(Number)	(Country)	(Day/Month/Year Filed)	yes	no
(Number)	(Country)	(Day/Month/Year Filed)	yes	no
(Number)	(Country)	(Day/Month/Year Filed)	yes	no

I hereby claim the benefit under Title 35, United States Code, § 119 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

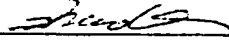
<u>60/200,003</u> (Application Serial No.)	<u>April 27, 2000</u> (Filing Date)	<u>Pending Provisional</u> (Status: patented, pending, abandoned)
<u>60/231,556</u> (Application Serial No.)	<u>September 11, 2000</u> (Filing Date)	<u>Pending Provisional</u> (Status: patented, pending, abandoned)

Power of Attorney: As a named inventor, I hereby appoint C. Lamont Whitham, Reg. No. 22,424, Marshall M. Curtis, Reg. No. 33,138 and Michael E. Whitham, Reg. No. 32,635, Kevin A. Reif, Reg. No. 36,381, Andrew M. Calderon, Reg. No. 38,093, Samuel W. Ntiro, Reg. No. 39,318, Ruth E. Tyler-Cross, Reg. No. 45,922, Philip D. Lane, Reg. No. 41,140, Shui-Chou Chou, Reg. No. 44,081, Clyde R. Christofferson, Reg. No. 34,138, Mary G. Goulet, Reg. No. 35,884, S. Luke Anderson, Reg. No. 44,507, Tony D. Alexander, Reg. No. 44,501 and Andrew Y. Pang, Reg. No. 40,114, as attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. All correspondence should be directed to McGuireWoods, 1750 Tysons Boulevard, Suite 1500, Tysons Corner, McLean, Virginia 22102-4215. Telephone calls should be directed to McGuireWoods, LLP at (703) 712-5000.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole

or First Inventor: Qun Zhao

Inventor's Signature  Date: 7/16/01

Residence: 1400 Houndschase Lane, Apt. G, Blacksburg, VA 24060

Citizenship: People's Republic of China

Post Office Address: Same as above

Full Name of Second

Joint Inventor: Fred C. Lee

Inventor's Signature  Date: 7/16/01

Residence: 2909 Stardford Ln., Blacksburg, VA 24060

Citizenship: United States of America

Post Office Address: Same as above

Full Name of Third

Joint Inventor: Peng Xu

Inventor's Signature  Date: 7/16/01

Residence: 1404 E University City Blvd., Blacksburg, VA 24060

Citizenship: People's Republic of China

Post Office Address: Same as above

Full Name of Fourth

Joint Inventor: _____

Inventor's Signature _____ Date: _____

Residence: _____

Citizenship: _____

Post Office Address: _____

*Title 37, Code of Federal Regulations, § 1.56:

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith toward the Patent and Trademark Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and (1) it establishes, by itself or in combination with other information, a prima facie case of unpatentability; or (2) it refutes, or is inconsistent with, a position the applicant takes in: (i) opposing an argument of unpatentability relied on by the Office, or (ii) asserting an argument of patentability.

00-117/123

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re patent application of

Q. Zhao et al.

Serial No.: 09/843,143

Group Art Unit: Unknown

Filed: April 27, 2001

Examiner: Unknown

For: COUPLED INDUCTOR DC/DC CONVERTER

Assistant Commissioner for Patents
Washington, D.C. 20231

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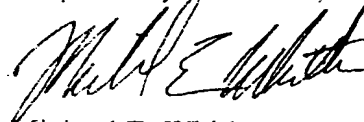
OFFICE OF PETITIONS

SUBMISSION OF ASSIGNMENT

Sir:

Kindly record and return to the undersigned the attached assignment from Qun Zhao, Fred C. Lee and Peng Xu to VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY, for the above-identified patent application. Enclosed is a check in the amount of \$40.00 to cover the recordation fee, charge any deficiencies in payment and credit any overpayments to Attorney's deposit account no. 23-1951.

Respectfully submitted,



Michael E. Whitham

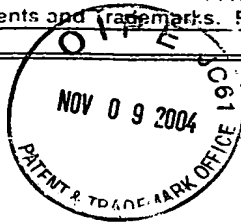
Reg. No.: 32,635

McGuireWoods LLP
1750 Tysons Boulevard, Suite 1800
McLean, VA 22102
(703)712-5000

RECORDATION FORM COVER SHEET
PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office
Docket No.: 00-117/123

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.



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OFFICE OF PETITIONS

<p>1. Name of conveying party(ies): Qun Zhao Fred C. Lee Peng Xu</p> <p>Additional names of conveying party(ies) attached? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no</p> <p>3. Nature of Conveyance <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____</p> <p>Execution Date: July 16, 2001</p>	<p>2. Name and address of receiving party(ies): Name: VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY Internal Address: Street Address: 146 Holden Hall, City: Blacksburg State: Virginia Zip Code: 24061</p> <p>Additional name(s) & address(es) attached? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no</p>
<p>4. Application number(s) or patent number(s): Title: COUPLED INDUCTOR DC/DC CONVERTER If this document is being filed together with a new application, the execution date of the application is _____</p> <p>A. Patent Application No(s). 09/843,143 filed on April 27, 2001 B. Patent No(s). _____</p> <p>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
<p>5. Name and address of party to whom correspondence concerning document should be mailed: Kevin A. Reif, Esq. McGuireWoods LLP 1750 Tysons Boulevard, Suite 1800 McLean, VA 22102 (703)712-5000</p>	<p>6. Total number of applications and patents involved: <u>1</u></p> <p>7. Total fee (37 CFR 3.41): <u>\$ 40.00</u> <input checked="" type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to be charged to deposit account <input type="checkbox"/> Total fee due <input checked="" type="checkbox"/> Any deficiencies in the enclosed fees</p> <p>8. Deposit account number: 23-1951</p>
<p>9. Statement and signature To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</p> <p><u>Michael E. Whitham</u> Name of Person Signing</p> <p><u>[Signature]</u> Signature</p> <p><u>August 13, 2001</u> Date</p> <p>Total number of pages including cover sheet: <u>2</u></p>	

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ASSIGNMENT OF INVENTION

WHEREAS, WE, Qun Zhao, Fred C. Lee and Peng Xu have invented certain new and useful improvements in COUPLED INDUCTOR DC/DC CONVERTER for which a United States Letters Patent application no. 09/843,143 was filed on April 27, 2001; and

WHEREAS, Virginia Polytechnic Institute & State University, an institute of higher education organized under the laws of the Commonwealth of Virginia, having an office and principal place of business at Blacksburg, Virginia hereinafter referred to as Assignee, is desirous of acquiring an interest in said invention and in any Letters Patent which may be granted therefor.

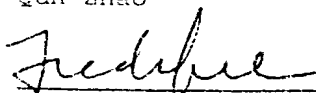
NOW THIS INDENTURE WITNESSETH, That for a valuable consideration, the receipt of which is hereby acknowledged, we hereby assign, sell and transfer unto the said assignee, the entire right, title and interest in and to inventions disclosed in said application and in and to any Letters Patent of the United States and in and to any Letters Patent or Inventor's Certificates of any and all foreign countries which may be granted therefor, and in and to any and all priority and/or Convention rights or benefits accruing or to accrue to us with respect to the filing or securing of patents in the United States and/or securing of patents or inventor's certificates in any and all countries foreign thereto.

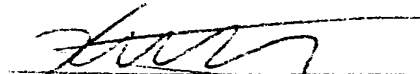
AND WE hereby grant to assignee the right to apply in its own name for patents or inventor's certificates corresponding to the above invention in countries foreign to the United States.

AND WE hereby further agree to sign and properly execute such necessary and lawful papers for application for foreign patents and inventor's certificates for filing applications for United States, foreign patents and inventor's certificates for subdivisions of any applications for patent or inventor's certificate and/or for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention and to perform such further acts as may be required to carry out the intent of this agreement as the assignee thereof shall hereafter require and prepare at assignee's expense.

Signed

 Dated 7/16/01
Qun Zhao

 Dated 7/16/01
Fred C. Lee

 Dated 7/16/01
Peng Xu

00-117/123

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re patent application of

Q. Zhao et al.

Serial No.: 09/843,143

Group Art Unit: Unknown

Filed: April 27, 2001

Examiner: Unknown

For: COUPLED INDUCTOR DC/DC CONVERTER

Assistant Commissioner for Patents
Washington, D.C. 20231

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OFFICE OF PETITIONS

SUBMISSION OF ASSIGNMENT

Sir:

Kindly record and return to the undersigned the attached assignment from Virginia Polytechnic Institute & State University to VIRGINIA TECH INTELLECTUAL PROPERTIES, INC., for the above-identified patent application. Enclosed is a check in the amount of \$40.00 to cover the recordation fee, charge any deficiencies in payment and credit any overpayments to Attorney's deposit account no. 23-1951.

Respectfully submitted,



Michael E. Whitham

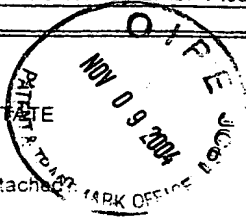
Reg. No.: 32,635

McGuireWoods LLP
1750 Tysons Boulevard, Suite 1800
McLean, VA 22102
(703)712-5000

RECORDATION FORM COVER SHEET
PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office
Docket No.: 00-117/123

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.



RECEIVED

NOV 12 2004

OFFICE OF PETITIONS

1. Name of conveying party(ies):

VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY

Additional names of conveying party(ies) attached? ☐ yes ☒ no

3. Nature of Conveyance

☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

Execution Date: July 24, 2001

2. Name and address of receiving party(ies):

Name: VIRGINIA TECH INTELLECTUAL PROPERTIES, INC.
Internal Address:

Street Address: 1872 Pratt Drive, Suite 1000
City: Blacksburg
State: Virginia
Zip Code: 24060

Additional name(s) & address(es) attached? ☐ yes ☒ no

4. Application number(s) or patent number(s):

Title: COUPLED INDUCTOR DC/DC CONVERTER

If this document is being filed together with a new application, the execution date of the application is _____

A. Patent Application No(s). 09/843,143 filed on April 27, 2001

B. Patent No(s).

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Kevin A. Reif, Esq.
McGuireWoods LLP
1750 Tysons Boulevard, Suite 1800
McLean, VA 22102
(703)712-5000

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41):

\$ 40.00

☒ Enclosed

☒ Authorized to be charged to deposit account

☐ Total fee due

☒ Any deficiencies in the enclosed fees

8. Deposit account number:

23-1951

9. Statement and signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Michael E. Whitham
Name of Person Signing

Michael E. Whitham
Signature

August 13, 2001
Date

Total number of pages including cover sheet: 2

ASSIGNMENT

WHEREAS, Virginia Polytechnic Institute and State University, (hereinafter referred to as ASSIGNOR), an institute of higher education organized under the laws of the Commonwealth of Virginia, having an office and principal place of business at Blacksburg, Virginia, is the owner of the entire right, title and interest in and to application for United States Letters Patent Serial No. 09/843,143, filed on April 27, 2001, in the names of Qun Zhao, Fred C. Lee and Peng Xu for COUPLED INDUCTOR DC/DC CONVERTER and of the invention therein described; and

WHEREAS, Virginia Tech Intellectual Properties, Inc. (hereinafter referred to as ASSIGNEE), a non-stock corporation organized under the laws of the Commonwealth of Virginia and having a principal place of business at 1872 Pratt Drive, Suite 1625, Blacksburg, VA 24060, is desirous of acquiring the entire right, title and interest in, to and under said application and said invention and in, to and under Letters Patent or similar legal protection to be obtained therefor in the United States and in any and all foreign countries.

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that in consideration of the payment by ASSIGNEE to ASSIGNOR of the sum of One Dollar (\$1.00), the receipt and sufficiency of which is hereby acknowledged, and for other good and valuable consideration, ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE, its lawful successors and assigns, the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries to be obtained for said invention by said application or any continuation, division, continuation-in-part, reexamination, renewal, substitute, extension or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted; and authorize and request the Commissioner of Patents of the United States and any official of any foreign country whose duty it is to issue patents or legal equivalents thereto, to issue same for this invention to ASSIGNEE, its lawful successors and assigns.

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to ASSIGNOR and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

Docket No.: 00-117/123

IN WITNESS WHEREOF, ASSIGNOR has caused the hand of its proper officer to be subscribed hereto this 24th day of JULY, 2001.

Witnessed by:

1 - K. G. Galt

VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY

Charles W. Steger
By: ~~Minnis Rideaux~~ CHARLES W. STEGER
~~Chief Operating Officer~~ PRESIDENT